

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

WEBB *et al.*

Appl. No.: 10/521,010

§ 371 Date: March 6, 2006

For: **Expression of Hydrophobic  
Proteins**

Confirmation No.: 2794

Art Unit: 1631

Examiner: Michael L. BORIN

Atty. Docket: 2349.0010000/JUK/WBC

**Reply to Restriction Requirement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the Office Action dated March 25, 2008, requesting an election of one invention to prosecute in the above-referenced patent application, Applicants hereby provisionally elect to prosecute the invention of Group I, represented by claims 1, 5 and 6. This election is made without prejudice to or disclaimer of the other claims or inventions disclosed.

This election is made **with traverse**.

Applicants respectfully assert that division of the present claims is improper under PCT Rules 13.1 and 13.2. At page 4 of the Office Action, the Examiner contends that the claims in Groups I-XXIII do not relate to a single inventive concept under PCT Rule 13.1 because they lack the same or corresponding technical features as required under PCT Rule 13.2. Applicants respectfully traverse these contentions.

Under PCT Rule 13.2, an alleged group of inventions claimed in a single application fulfill the unity of invention requirement of PCT Rule 13.1 when they share one or more of the same or corresponding special technical features. The phrase "special

technical features," means "those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art." PCT Rule 13.2. As the Examiner indicated, the claims in first appearing invention (Group I) satisfy the unity of invention requirement, since they share a common technical feature -- arranging or re-locating at least one of the identified hydrophobic peptide sequences within the polypeptide to generate a candidate polypeptide with reduced amplitude in hydrophobicity or length of any hydrophobic agent -- that is a contribution over the prior art.

Additionally, the U.S. Patent and Trademark Office regulations provide guidance to Examiners in regard to unity of invention:

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combination of categories: . . .

(2) A product and process of use of said product; . . .

37 C.F.R. § 1.475(b)(2).

Furthermore, the PCT International Search and Preliminary Examination Guidelines provide:

(c)(i) If the independent claims avoid the prior art and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims. In particular, it does not matter if a dependent claim itself contains a further invention . . . . Equally, no problem arises in the case of a genus/species situation where the genus claim avoids the prior art. Moreover, no problem arises in the case of a combination/subcombination situation where the subcombination claim avoids the prior art and the combination claim includes all the features of the subcombination.

PCT International Search and Preliminary Examination Guidelines, Part III, Chapter 10.

The following examples are also provided:

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**Example 1**

Claim 1: A method of manufacturing chemical substance X.

Claim 2: Substance X.

Claim 3: The use of substance X as an insecticide.

Unity exists between claims 1, 2 and 3. The special technical feature common to all the claims is substance X.

**Example 15**

Claim 1: Compound A.

Claim 2: An insecticide composition comprising compound A and a carrier.

Unity exists between claims 1 and 2. The special technical feature common to all the claims is compound A.

*Id.* at Chapter 10.

Furthermore, Groups II-VI, VIII and XXI-XXIII also possess unity of invention with Group I because all of their respective claims contain reference to the special technical feature, i.e., arranging or re-locating at least one of the identified hydrophobic peptide sequences within the polypeptide to generate a candidate polypeptide with reduced amplitude in hydrophobicity or length of any hydrophobic agent. Thus, Groups I-VI, VIII and XXI-XXIII should be examined together.

Furthermore, Applicants respectfully traverse the Examiner's division of the claims into twenty three groups and the reasons stated therefor for additional reasons. For example, Groups I-VI, VIII and XXI-XXIII are related as between a method of designing a polypeptide (Group I), a method of designing the polypeptide by arranging two, three or four groups of epitopes (Groups II-IV), a method of expressing that

polypeptide (Group V), a polypeptide designed by the method (Groups VI and XXI-XXIII) and a vaccine containing the polypeptide (Group VIII). Groups IX and XIV are related in that they both disclose SEQ ID NO:1. Groups X and XV are related in that they both disclose SEQ ID NO:2. Groups XI and XVI are related in that they both disclose SEQ ID NO:3. Groups XII and XVII are related in that they both disclose SEQ ID NO:4. Groups XIII and XVIII are related in that they both disclose SEQ ID NO:5.

Even assuming, *arguendo*, that Groups I-XXIII represent distinct or independent inventions, Applicants submit that to search and examine the subject matter of these Groups together would not be a serious burden on the Examiner. For example, publications which disclose a method of designing a polypeptide by arranging or re-locating at least one of the identified epitopes within the polypeptide to generate a candidate polypeptide will also disclose how many epitopes were re-arranged to make the candidate polypeptide and will disclose a polypeptide made by such a method. Accordingly, it would not be an undue burden for the Examiner to search Groups I-XXIII, or at least, Groups I-VI, VIII and XXI-XXIII, together. The M.P.E.P. §803 (Eighth Edition, Rev. August, 2005) states:


If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

Thus, in view of the M.P.E.P. §803, Applicants respectfully request that all claims be searched and examined in the subject application. Therefore, reconsideration and withdrawal of the Restriction Requirement, and consideration and allowance of all pending claims, are respectfully requested.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

Respectfully submitted,

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